

Title (en)
Multilateral well drilling and completion method and apparatus

Title (de)
Verfahren und Vorrichtung zum Bohren und Fertigstellen einer Erdborung mit mehreren Seitenbohrungen

Title (fr)
Procédé et dispositif de forage et d'équipement d'un puits comportant plusieurs forages latéraux

Publication
EP 1491714 A3 20050406 (EN)

Application
EP 04077499 A 19950824

Priority
• EP 02077722 A 19950824
• EP 95305919 A 19950824
• US 29694194 A 19940826

Abstract (en)
[origin: US5735350A] Improved methods and systems for creating a multilateral well and improved multilateral well structures. In one aspect of the present invention, the method comprises the steps of: (1) setting a diverter at a prescribed position and a prescribed orientation in a main well flow conductor located within a main wellbore, (2) boring through a sidewall of the main well flow conductor and into a material surrounding the main well flow conductor, the boring creating a window having a particular shape in the sidewall, the orientation of the diverter determining a lateral position of the window in the main well flow conductor, a lateral wellbore thereby being formed in the material and extending from the main wellbore, (3) lining the lateral wellbore with a liner, the liner having an interface end, the interface end adapted to contact a periphery of the window in the sidewall and (4) cementing the liner in place within the lateral wellbore, the step of cementing creating a pressure-bearing seal between the periphery of the window and the interface end of the liner. The method allows multiple lateral wellbores to be joined to the main wellbore and provides for connectivity among main and lateral wellbores, pressure-bearing sealing of joints to allow selective isolation of one or more wellbores or portions thereof and subsequent wellbore access for rework or other purposes.

IPC 1-7
E21B 7/08; **E21B 41/00**; **E21B 23/02**; **E21B 29/06**

IPC 8 full level
E21B 7/06 (2006.01); **E21B 7/08** (2006.01); **E21B 17/00** (2006.01); **E21B 17/10** (2006.01); **E21B 17/22** (2006.01); **E21B 23/00** (2006.01); **E21B 23/02** (2006.01); **E21B 23/03** (2006.01); **E21B 23/12** (2006.01); **E21B 29/06** (2006.01); **E21B 33/129** (2006.01); **E21B 33/1295** (2006.01); **E21B 41/00** (2006.01); **E21B 43/10** (2006.01); **F16L 7/00** (2006.01); **F16L 9/16** (2006.01)

CPC (source: EP US)
E21B 7/061 (2013.01 - EP US); **E21B 17/00** (2013.01 - EP US); **E21B 17/10** (2013.01 - EP US); **E21B 17/1007** (2013.01 - EP US); **E21B 17/22** (2013.01 - EP US); **E21B 23/00** (2013.01 - EP US); **E21B 23/02** (2013.01 - EP US); **E21B 23/03** (2013.01 - EP US); **E21B 23/12** (2020.05 - EP US); **E21B 29/06** (2013.01 - EP US); **E21B 33/1293** (2013.01 - EP US); **E21B 33/1295** (2013.01 - EP US); **E21B 41/0042** (2013.01 - EP US); **E21B 43/10** (2013.01 - EP US); **F16L 7/00** (2013.01 - EP US); **F16L 9/16** (2013.01 - EP US)

Citation (search report)
• [XY] EP 0574326 A1 19931215 - INST FRANCAIS DU PETROLE [FR], et al
• [Y] US 5318122 A 19940607 - MURRAY DOUGLAS J [US], et al
• [DA] US 2797893 A 19570702 - MCCUNE JOHN S, et al

Cited by
CN105247159A

Designated contracting state (EPC)
FR GB

DOCDB simple family (publication)
US 5735350 A 19980407; CA 2156977 A1 19960227; CA 2156977 C 20030513; EP 0701045 A2 19960313; EP 0701045 A3 19971203; EP 0701045 B1 20031015; EP 1249574 A2 20021016; EP 1249574 A3 20030326; EP 1249574 B1 20050427; EP 1491714 A2 20041229; EP 1491714 A3 20050406; EP 1533467 A2 20050525; EP 1533467 A3 20050824; NO 310082 B1 20010514; NO 953323 D0 19950824; NO 953323 L 19960227; SG 34260 A1 19961206; SG 34261 A1 19961206; US 5499680 A 19960319; US 5499681 A 19960319; US 5501281 A 19960326; US 5507346 A 19960416; US 5564503 A 19961015

DOCDB simple family (application)
US 73146496 A 19961015; CA 2156977 A 19950825; EP 02077722 A 19950824; EP 04077499 A 19950824; EP 05004298 A 19950824; EP 95305919 A 19950824; NO 953323 A 19950824; SG 1995001217 A 19950825; SG 1995001221 A 19950825; US 29694194 A 19940826; US 38077195 A 19950130; US 38089995 A 19950130; US 38090195 A 19950130; US 38090595 A 19950130